

REMARKS

Claims 9 through 13 and 18 through 33 are pending in this application.

Claims 9, 18, 19, 25, 26, 30 and 32 have been amended to more clearly define the present invention.

No new matter has been added by this Amendment.

I. With respect to the examiner's point 2 (*i.e.*, the abstract objection), the word "is" in the Abstract has been replaced with "are". Withdrawal of the objection is respectfully requested.

II. With respect to the examiner's points 3-4 and 8, the examiner rejected claims 9, 10, 12, 13, 26-29 and 31-33 under 35 U.S.C. 112, first paragraph, enablement requirement, and second paragraph.

The examiner asserted that the specification, while being enabling for a process wherein the deposited tube is rotated while being heated by the circular heater, does not reasonably provide enablement for the process as generically claimed. Also, the examiner asserted that the step of rotating the tube during heating by the circular heater should be included in the claims.

Claims 9 and 26 have been amended by reciting the feature of rotating the tube. Therefore, withdrawal of the rejection on claims 9 and 26 and their dependent claims 10, 12, 13, 27-29 and 31-33 is respectfully requested.

III. With respect to the examiner's points 5-6 and 9, the examiner rejected claims 9-13, and 18-33 under 35 U.S.C. 112, first paragraph, enablement requirement, and second paragraph.

The examiner asserted that the specification, while being enabling for a process wherein the deposited tube is oriented within the circular heater such that the sealed end is the upper end, does not reasonably provide enablement for the process as generically claimed. Also, the examiner asserted that the step of orienting the tube within the circular heater such that the sealed end is the upper end should be included in the claims.

Claims 9, 18 and 26 have been amended by reciting the feature of the sealed end being the upper end. Withdrawal of the rejection on claims 9, 18 and 26 and their dependent claims 10-13, and 19-25 and 27-33.

IV. Claims 9-13, 32 and 33 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

The examiner asserted that the specification does not appear to support the limitation in claim 9, which recites “wherein a flame pressure of said circular heater during the shrinking and closing step is higher than a flame pressure of said first heater during the deposition step.”

The Examiner’s rejection is not proper for the following reasons.

To comply with the written description requirement of 35 U.S.C. 112, para. 1, each claim limitation may be *expressly, implicitly, or inherently* supported in the disclosure. The court held that when an explicit limitation in a claim “is not present in the written description, it must be shown that a person of ordinary skill would have understood, at the time the patent application was filed, that the description requires that limitation.” *Hyatt v. Boone*, 146 F.3d 1348, 1353, 47 USPQ2d 1128, 1131 (Fed. Cir. 1998). See also *In re Wright*, 866 F.2d 422, 425, 9 USPQ2d 1649, 1651 (Fed. Cir. 1989). The court also held that “the test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the

artisan that the inventor had possession at that time of the later claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language. *In re Edwards*, 558 [569] F.2d 1349, 196 USPQ 465 (CCPA 1978); *In re Herschler*, 591 F.2d 693, 200 USPQ 711 (CCPA 1979).” *In re Kaslow*, 707 F.2d 1366, 217 USPQ 1089 (Fed. Cir. 1983).

In view of the above decisions, the support for the limitation is found in the specification as follows:

“a burner configured to have a large heating area while using a low flame pressure is typically used in the deposition process” (page 2, lines 2-3),

“it is necessary to use a high flame pressure in a tube shrinking and closing process to be conducted for the deposited tube, as different from the deposition process. Where a burner suitable for the deposition process is used for the shrinking and closing process, in spite of the above mentioned fact, it is necessary to move the burner at a low speed while keeping a high heating temperature in order to allow the deposited tube to be softened at the low flame pressure used. As a result, the processing time of the tube shrinking and closing process occupies a large portion of the entire processing time of the optical fiber preform manufacture process. For this reason, the conventional tube shrinking and closing process serves as a great obstacle to a reduction in processing time” (page 2, lines 7-15),

“Based on our reading of the art, then, we have decided that what is needed is a faster method of manufacturing an optical fiber preform which avoids the above-mentioned problems” (page 5, lines 6-7); and

“the present invention provides an optical fiber preform manufacturing apparatus and method in which processes for shrinking and closing a deposited tube are conducted using

a device suitable for those processes, which device is other than the device used in a deposition process for forming the deposited tube on the inner surface of a preform tube, thereby reducing the processing time to a degree corresponding to half that of the conventional method or less" (page 14, lines 15 to page 15, line 2).

In view of the above descriptions, the feature of "a flame pressure of said circular heater during the shrinking and closing step is higher than a flame pressure of said first heater during the deposition step" is *expressly, implicitly, or inherently* supported in the disclosure. Also, the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter, and a person of ordinary skill would have understood, at the time the patent application was filed, that the description requires that limitation.

Therefore, the specification supports the limitation of Claim 9. Withdrawal of the rejection is respectfully requested.

In view of the above, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. Reconsideration of the rejections and objections is requested. Should any questions remain unresolved, the Examiner is requested to telephone Applicant's attorney.

No fee is incurred by this amendment. Should the other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,



Robert E. Bushnell
Robert E. Bushnell,
Attorney for the Applicant
Registration No.: 27,774

1522 "K" Street, N.W., Suite 300
Washington, D.C. 20005
Telephone No. 202-408-9040
Facsimile No. 202-289-7100

Folio: P55890A
Date: 28 July 2004
I.D.: REB/JHP